

REMARKS

This application contains claims 1-16, all of which were rejected or objected to in the present Official Action. Reconsideration is respectfully requested in view of the remarks that follow.

The specification was objected to for "many errors," including specifically the references to "Section 6.6" and "Section 7.9" on page 2 of the specification. It appears that the Examiner read these references as though they were directed to sections of the specification itself. The first paragraph on page 2 of the specification, however, makes clear that these references are directed to sections of the 802.1D standard:

"The discussion that follows is an abstract of the processes and services provided in a MAC bridge, in accordance with sections of IEEE 802.1D standard."

Thus, the references objected to by the Examiner are not erroneous. Nevertheless, for the sake of clarity, Applicant has amended the specification to state specifically that each of these section numbers mentioned in the Background of the Invention refers to the corresponding section of the 802.1D standard.

Following a review of the remainder of the specification, Applicant has also corrected an error in the Summary of the Invention. The corrected language is in accord with the claims as filed.

Claims 1, 4-6, 8, 9, 12-14 and 16 were rejected under 35 U.S.C. 103(a) over Khansari et al. (U.S. Patent 6,466,131) in view of IEEE Standard 802.1D. Applicant respectfully traverses this rejection.

Claim 1 recites a method for budgeted learning of link information in a network. A database containing the link information is used by an entity connected to the network in transferring traffic over the network. A maximum rate is set for addition of entries to the database. A new entry determined during a given learning period is added to the database only if the addition of the entries during the learning period has not exceeded the maximum rate. As explained in the specification (page 8, second paragraph), for example, this approach is useful in preventing breakdown of MAC bridges and interruption of normal network services during Denial of Service (DOS) attacks.

Khansari describes a protocol that is used by a bridge or other transparent layer-two device to filter duplicate frames and learn about nodes connected to a bridged local area network (abstract). As acknowledged by the Examiner, Khansari does not teach or suggest setting a maximum rate for addition of entries to the database or adding a new entry to the database only if the addition of the entries during the learning period has not exceeded the maximum rate, as recited in claim 1.

The 802.1D standard (section 6.6) describes a filtering service in a bridged LAN. The filtering service maintains a filtering database to determine whether to relay a specific frame from one port of the bridge to another (section 7.9). Each entry in the filtering database maps a destination MAC address to a port of the bridge. The filtering database may contain both static entries, which are explicitly configured by the network manager, and dynamic entries, which are updated through a learning process (described in section 7.8).

In other words, to summarize, the 802.1D standard in this context describes two separate activities:

- Addition of new entries to the filtering database, which may be performed manually or automatically by dynamic learning.
- Filtering of packets using the entries in the filtering database (irrespective of the process by which the entries are placed in the database).

Section 16.1 of the 802.1D standard, cited by the Examiner, specifies the “Guaranteed Port Filtering Rate” of a bridge port. The Guaranteed Port Filtering Rate is defined in this section as the minimum number of frames per second that the port is guaranteed to filter without discarding any relayed frames. The rate is guaranteed subject to a number of assumptions, including:

“e) The information upon which the filtering decisions are based has been configured in the Filtering Database prior to the start of time interval  $T_f$ ” [over which the rate is measured].

It is clear from this description that the filtering rate does not refer to a rate at which entries are added to the filtering database, as in claim 1, but rather the rate at which the bridge filters frames using entries that have already been placed in the database. The Guaranteed Port Filtering Rate explicitly assumes that the entries are already in the database when the rate is measured and is indifferent to how those entries are added. It has nothing to do with the learning process described in section 7.8 of the 802.1D standard.

Furthermore, even if it were conceded, for the sake of argument, that section 16.1 somehow does relate to learning, this section sets a guaranteed minimum rate, below which the filtering performance of the bridge may not fall. Claim 1, by contrast, recites a maximum rate for the addition of entries to the database, which may not be exceeded.

Thus, the 802.1D standard neither teaches nor suggests the limitations of claim 1. This claim is therefore believed to be patentable over the cited art. In view of the patentability of claim 1, dependent claims 4-6 and 8 are also believed to be patentable.

Claims 9, 12-14 and 16 recite a communication device, which operates on principles similar to the methods of claims 1, 4-6 and 8. Thus, claims 9, 12-14 and 16 are believed to be patentable over the cited art for the reasons explained above.

Dependent claims 2, 3, 7, 10, 11 and 15 were deemed to recite allowable subject matter but were objected to for depending from rejected base claims. Applicant respectfully traverses this objection. In view of the patentability of the independent claims in this application, however, as explained above, Applicant believes that the objection to these dependent claims should be withdrawn.

Applicant believes the amendments and remarks presented hereinabove to be fully responsive to all of the objections and grounds of rejection raised by the Examiner. In view of these amendments and remarks, Applicant respectfully submits that all of the claims in the present application are in order for allowance. Notice to this effect is hereby requested.

If there are any fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,

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Dated: \_\_\_\_\_

4/5/06



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4-6-06  
April 6, 2006